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10/578,000

05/03/2006

Shizuo Manabe

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EXAMINER

WANG, JIN CHENG

ART UNIT

PAPER NUMBER

2628

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/578,000	<b>Applicant(s)</b> MANABE, SHIZUO	
	<b>Examiner</b> JIN-CHENG WANG	<b>Art Unit</b> 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's submission filed on 5/10/2010 has been entered. The claims 1 and 4-5 have been amended. Claims 2-3 have been canceled. Claims 1 and 4-10 are pending in the present application.

### ***Response to Arguments***

Applicant's arguments filed 5/10/2010 have been fully considered but are not found persuasive in view of the new ground(s) of rejection set forth in the this Office Action.

Applicant argues that computer programs are statutory. In response, Computer program per se is non-statutory. The claims 6-10, *inter alia*, recite "[a] computer program product...stored on a computer readable medium..." is software *per se*. Computer program per se is non-statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8. *In re Sarkar*, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978). *Abele*, 684 F.2d at 907, 214 USPQ at 687. See also *In re Johnson*, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978).

With respect to the claimed "[a] computer program product...stored on a computer-readable medium", the Ex Parte Frederick D. Busche Appeal No. 2008-004750, Decided May 28, 2009, sheds light. The mere recitation of a computer program product having computer-readable medium does not make the method steps within the non-statutory codes statutory. The claim 29 of Ex Parte Frederick D. Busche recites "a computer program product in a computer readable medium comprising instructions..." The Board stated in Page 20 that, "*Computer program product claim 29 and the claims dependent therefrom recite instructions on a computer*

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*readable medium for executing the method steps in claim 1 and its dependent claims. The issue presented by these claims is whether recitation of such steps is more than the manipulation of abstract ideas. We find that the steps performed by the instructions do no more than generate arbitrary data sets, compare them, modify them, and then use them in some unspecified predictive algorithm. Thus, since the data is totally arbitrary and is no more than the abstract representation of ideas that may be equally abstract, the computer program product contains instructions that do no more than manipulate such abstract ideas. See In re Warmerdam, 33 F. 3d 1354, 1360 (Fed. Cir. 1994)."*

Additionally, the claim 6 recites software stored on a computer readable medium, as opposed to computer readable medium storing software. Moreover, for argument's sake, even if computer readable medium storing software is claimed, the computer readable medium is not disclosed in the Specification and thus under broadest reasonable interpretation that the medium set forth in the claim 6 is not necessary non-transitory. The medium encompasses transitory medium such as transmission medium or carrier wave and thus non-statutory.

In conclusion, the claims fail to go beyond a recitation of the manipulation of abstract ideas. *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008). *In re Abele and Marshall*, 214 USPQ 682 (C.C.P.A. 1982). *Ex parte Halligan*, 89 USPQ2d 1355, U.S. Patent and Trademark Office Appeal No. 2008-1588. *Ex parte Jakobsson*, 84 USPQ2d 1511, U.S. Patent and Trademark Office Appeal No. 2006-2107, Decided April 16, 2007. *Ex parte Cornea-Hasegan*, 89 USPQ2d 1557 (Bd. Pat. App. & Int. 2009). *Ex parte Langemyr*, 89 USPQ2d 1988, U.S. Patent and Trademark Office Appeal No. 2008-1495. *Ex Parte David Myr*, Appeal No. 2009-005949, Decided Sept. 18, 2009. *Ex Parte George Henry Forman*, Appeal No. 2008-005348, Decided

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August 17, 2009. Ex parte Srinivas Gutta and Kaushal Kurapati, Appeal No. 2008-004366, Decided August 10, 2009. Ex Parte Rodney Daughtrey, Appeal No. 2008-000202, Decided April 8, 2009.

Limiting the claim to computer readable medium does not add any practical limitation to the scope of the claim. Such a field-of-use limitation is insufficient to render an otherwise ineligible claim patent eligible. In essence applicant is preempting all substantial uses of the claimed abstract idea.

In Page 9 of Remarks, Applicant argues with respect to the Kobari reference that the guide lines of Kobari are arranged in parallel, but not at regular intervals. The Examiner respectfully disagrees. Applicant's claim 1 requires plural regular intervals which is a broad term. What is reasonable interpretation of the claimed regular intervals? In a non-limiting example, when all guide lines are not arranged at a singular regular interval in which guide lines arranged at a first regular interval and guide lines arranged at a second regular interval meets the claimed guide lines arranged at regular intervals, all guide lines are still arranged at regular intervals including the first regular interval and the second regular interval. Moreover, for argument's sake, even if Applicant may import limitations from the Specification, Kobari's Fig. 3 includes at least three guide lines including two guide lines for the circumscribed quadrangle 6 and one center line wherein the guide lines are arranged at a regular interval. Kobari's three guide lines arranged in parallel in the first regular interval constitute two guide lines arranged in the first regular interval and two other guide lines arranged in the first regular interval. The three guide lines together are the claimed guide lines arranged in parallel at regular intervals.

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Kobari teaches at Drawing #5 plural prospective guide lines embedded with the plural rectangles. The prospective guide lines for one rectangle are arranged in parallel at a first regular interval and the prospective guide lines for the other rectangle may be arranged in parallel at a second regular interval, meeting the claimed guide lines arranged at regular intervals.

In Page 9 of Remarks, Applicant further argues that Fig. 3 of Kobari only show two guide lines for the circumscribed quadrangle 6. The Examiner cannot concur. Fig. 3 of Kobari also shows a centerline. The centerline is clearly drawn in Fig. 3 of Kobari. Applicant ignores the centerline in Fig. 3 of Kobari for arguments' sake. The centerline in Fig. 3 of Kobari cannot be ignored. Kobari's Fig. 3 includes at least three guide lines including two guide lines for the circumscribed quadrangle 6 and one center line arranged at a regular interval.

Kobari further teaches selecting a rectangle to place a character string which is the same as specifying the respective parallel horizontal guide lines including a centerline for the rectangle. Moreover, Kobari teaches at Drawing #3 specifying a centerline for the circumscribed quadrangle 6, as opposed to selecting other possible circumscribed quadrangles. The centerline is specified so as a character string is placed along the centerline.

In Page 10 of Remarks, Applicant argues in essence with respect to the claimed placing the character string along one of the specific prospective guide lines.

In response to the above argument, Kobari discloses at Drawing #3 at least three horizontal prospective guide lines including two guide lines for each circumscribed quadrangle 6 and one centerline for each circumscribed quadrangle 6. Kobari teaches specifying at least three guide lines including two horizontal prospective guide lines for each circumscribed quadrangle 5 and one centerline of each quadrangle as drawn in the figure, meeting the claimed prospective

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guide line(s). Kobari teaches selecting the circumscribed quadrangle 6 and selecting the prospective guide lines by selecting the circumscribed quadrangle 6 and placing the character string along the centerline of the prospective guide lines. Kobari teaches specifying a centerline so as to place a character string within the circumscribed quadrangle 6. Placing the character string within the circumscribed quadrangle 6 includes the steps of specifying the respective rectangle to place a character string within the circumscribed quadrangle 6 and placing the character string along the centerline of the quadrangle 6. Kobari teaches specifying a centerline for the particular character string being placed along the centerline.

Applicant argues with respect to the claim 1 and similar claims that Fushiki fails to teach placing a character string along a prospective guide line that is located at the center of prospective guide lines that are longer than the longest horizontal segment of the area of the character string. The Examiner cannot concur. Fushiki teaches at Fig. 6 and column 6 that the region's perimeter will not intersect text written within the region in which the text is placed within the rectangle box 530 and/or Rectangle 532 wherein the text includes at least one character string placed along the centerline of the rectangle box 530 and/or Rectangle 532 that is located at the center of the prospective guide lines that are longer than the longest horizontal segment of the area of the character string because the character string is placed within the text box. At least the five guide lines in Fig. 6 are arranged in parallel and at least one character string (of the text) is placed along the center line of the text box 530 or the text box 532.

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As addressed below, the Claim 1 is rejected to be unpatentable over Kobari et al. (Japanese Publication No. 8-167039) in further view of Fushiki et al. (US Pat. No. 6,868,524) and Ozawa US Patent Application Publication 2004/0001628 (hereinafter Ozawa).

As addressed below, Kobari discloses at Drawing #3 at least three guide lines arranged in a regular interval including two horizontal prospective guide lines for each circumscribed quadrangle 6 and one centerline for the circumscribed quadrangle 6.

Kobari teaches additional guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5 along with a centerline of each quadrangle as drawn in the figure, meeting the claimed prospective guide line(s). Kobari discloses at Drawing# 5 and Paragraph 0017, the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction---the centerline direction---- of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold, thus meeting the claimed “longer than the longest horizontal segment of the area of the character string. The centerline of the circumscribed quadrangle 6 has been also explicitly drawn and visualized in Drawing #3 and multiple circumscribed quadrangles including the rectangle 6 are disclosed in Drawing #5 wherein each quadrangle includes at least two circumscribed horizontal lines and the centerline of each quadrangle is illustrated in Fig. 3. Kobari discloses in Written Description placing a character string along the centerline in the horizontal lengthwise direction of a circumscribed quadrangle within a polygon having a plurality of circumscribed quadrangles and thus discloses selecting from among the prospective guide lines of the circumscribed quadrangles within a polygon, specific prospective guide lines of a particular circumscribed quadrangle by selecting the particular circumscribed quadrangle to place the character string



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along the horizontal lengthwise direction of the particular circumscribed quadrangle. Thus, Kobari discloses a centerline is specified within a selected circumscribed quadrangle to place or align the character string in the horizontal lengthwise direction as clearly shown in Drawing #5 and Drawing #8.

Kobari teaches an apparatus for optimizing character string placing (Drawing #2) comprising:

Means for drawing prospective guide lines as virtual horizontal lines arranged in parallel at regular intervals in a demarcated region (*e.g., at Drawing #3, at least three guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 6 and one centerline for each circumscribed quadrangle 6 wherein the guide lines are drawn at regular intervals. Kobari teaches additional guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5 along with a centerline of the quadrangles, meeting the claimed prospective guide line(s), and at Drawing# 5 and Paragraph 0017, the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold, thus meeting the claimed “longer than the longest horizontal segment of the area of the character string”*);

Means for selecting, from among the prospective guide lines, specific prospective guide lines that are arranged in parallel and are longer than a longest horizontal segment of an area of a character string (*e.g., Kobari teaches at Drawing #5 plural prospective guide lines embedded with the plural rectangles and selecting a rectangle to place a character string is the same as*

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*selecting the respective parallel horizontal guide lines for each rectangle and the centerline for each rectangle.*

*Kobari discloses at Drawing #3 at least three guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 6 and one centerline for each circumscribed quadrangle 6.*

*Kobari teaches additional guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5 along with a centerline of each quadrangle as drawn in the figure, meeting the claimed prospective guide line(s). Kobari teaches selecting the prospective guide lines by selecting the circumscribed quadrangle 6 to place a character string. A centerline is specified so as to place a character string along the centerline.*

*Kobari discloses at Drawing# 5 and Paragraph 0017, the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction---the centerline direction---- of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold, thus meeting the claimed “longer than the longest horizontal segment of the area of the character string. The centerline of the circumscribed quadrangle 6 has been also explicitly disclosed in Drawing #3 and multiple circumscribed quadrangles including the rectangle 6 are disclosed in Drawing #5 wherein each quadrangle includes at least two circumscribed horizontal lines and the centerline of each quadrangle is illustrated in Fig. 3. Korari discloses placing a character string along the centerline in the horizontal lengthwise direction of a circumscribed quadrangle within a polygon having a plurality of circumscribed quadrangles and thus discloses selecting from among the prospective guide lines of the circumscribed quadrangles within a polygon, specific prospective guide lines of a particular*

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*circumscribed quadrangle by selecting the particular circumscribed quadrangle to place the character string along the horizontal lengthwise direction. Thus, Kobari discloses a centerline is specified to place the character string in the horizontal lengthwise direction as clearly shown in Drawing #5 and Drawing #8);*

Specifying one of the specific prospective guide lines that is located at the center of an arrangement of the specific guide lines arranged in parallel in a vertical direction (e.g., Kobari teaches at Drawing #5 plural prospective guide lines embedded with the plural rectangles and selecting a rectangle to place a character string is the same as specifying the respective parallel horizontal guide lines including the centerline of the respective rectangle. Moreover, Kobari teaches at Drawing #3 specifying a centerline for the circumscribed rectangle 6. The centerline is specified so as a character string is placed along the centerline.

*Kobari discloses at Drawing #3 at least three guide lines including the two horizontal prospective guide lines for each circumscribed quadrangle 6 and one centerline for each circumscribed quadrangle 6.*

*Kobari teaches additional guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5 along with a centerline of each quadrangle, meeting the claimed prospective guide line(s). Kobari teaches selecting the prospective guide lines by selecting the circumscribed quadrangle 6 and specifying a centerline so as to place a character string within the circumscribed quadrangle 6. Placing the character string within the circumscribed quadrangle 6 includes the steps of specifying the respective rectangle to place a character string within the circumscribed quadrangle 6 and specifying a centerline for the particular character string being placed along the centerline.*

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*Kobari discloses at Drawing #3 at least three guide lines including two horizontal prospective guide lines for each circumscribed quadrangle 6 and one centerline for each circumscribed quadrangle 6. Kobari teaches additional guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5 along with a centerline of each quadrangle as drawn in the figure, meeting the claimed prospective guide line(s). Kobari discloses at Drawing# 5 and Paragraph 0017, the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction---the centerline direction---- of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold, thus meeting the claimed “longer than the longest horizontal segment of the area of the character string. The centerline of the circumscribed quadrangle 6 has been also explicitly disclosed in Drawing #3 and multiple circumscribed quadrangles including the rectangle 6 are disclosed in Drawing #5 wherein each quadrangle includes at least two circumscribed horizontal lines and the centerline of each quadrangle is illustrated in Fig. 3. Korari discloses placing a character string along the centerline in the horizontal lengthwise direction of a circumscribed quadrangle within a polygon having a plurality of circumscribed quadrangles and thus discloses selecting from among the prospective guide lines of the circumscribed quadrangles within a polygon, specific prospective guide lines of a particular circumscribed quadrangle by selecting the particular circumscribed quadrangle to place the character string along the horizontal lengthwise direction. Thus, Kobari discloses a centerline is specified to place the character string in the horizontal lengthwise direction as clearly shown in Drawing #5 and Drawing #8);*

Placing the character string along said one of the specific prospective guide lines (e.g., *Kobari discloses at Drawing #3 at least three guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 6 and one centerline for each circumscribed quadrangle 6. Kobari teaches additional horizontal guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5 along with a centerline of each quadrangle as drawn in the figure, meeting the claimed prospective guide line(s). Kobari discloses at Drawing# 5 and Paragraph 0017, the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction---the centerline direction---- of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold, thus meeting the claimed “longer than the longest horizontal segment of the area of the character string. The centerline of the circumscribed quadrangle 6 has been also explicitly disclosed in Drawing #3 and multiple circumscribed quadrangles including the rectangle 6 are disclosed in Drawing #5 wherein each quadrangle includes at least two circumscribed horizontal lines and the centerline of each quadrangle is illustrated in Fig. 3. Korari discloses placing a character string along the centerline in the horizontal lengthwise direction of a circumscribed quadrangle within a polygon having a plurality of circumscribed quadrangles and thus discloses selecting from among the prospective guide lines of the circumscribed quadrangles within a polygon, specific prospective guide lines of a particular circumscribed quadrangle by selecting the particular circumscribed quadrangle to place the character string along the horizontal lengthwise direction. Thus, Kobari discloses a centerline is specified to place the character string in the horizontal lengthwise direction as clearly shown in Drawing #5 and Drawing #8).*

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Kobari discloses performing a horizontal placement to place a character string along a prospective guide line that is located at the center of prospective guide lines that are longer than the longest horizontal segment of the area of the character string (e.g., at Drawing# 5 and Paragraph 0017, the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold, thus meeting the claimed “longer than the longest horizontal segment of the area of the character string”), the prospective guide lines being drawn as virtual horizontal lines at regular intervals in the demarcated region (e.g., At Drawing #3, at least three guide lines including the two horizontal prospective guide lines for each circumscribed quadrangle 6 and one centerline for each circumscribed quadrangle 6. Kobari teaches additional guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5 along with a centerline of the quadrangles, meeting the claimed prospective guide line(s), and at Drawing# 5 and Paragraph 0017, the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold wherein the lines are drawn as virtual horizontal lines in the Drawing #6 as regular scan lines on a display at regular time intervals in the demarcated region 4).

Kobari discloses at Drawing #3 at least three guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 6 and one centerline. Kobari teaches additional guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5 along with a centerline of each quadrangle, meeting the claimed prospective guide line(s). Kobari discloses at Drawing# 5 and Paragraph 0017, the actual breadth

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of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction---the centerline direction---- of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold, thus meeting the claimed “longer than the longest horizontal segment of the area of the character string. The centerline of the circumscribed quadrangle 6 has been also explicitly disclosed in Drawing #3 and multiple circumscribed quadrangles including the rectangle 6 are disclosed in Drawing #5 wherein each quadrangle includes at least two circumscribed horizontal lines and the centerline of each quadrangle is illustrated in Fig. 3. Korari discloses placing a character string along the centerline in the horizontal lengthwise direction of a circumscribed quadrangle within a polygon having a plurality of circumscribed quadrangles and thus discloses selecting from among the prospective guide lines of the circumscribed quadrangles within a polygon, specific prospective guide lines of a particular circumscribed quadrangle by selecting the particular circumscribed quadrangle along with the centerline to place the character string along the horizontal lengthwise direction. Thus, Kobari discloses a centerline is specified to place the character string in the horizontal lengthwise direction as clearly shown in Drawing #5 and Drawing #8.

Kobari teaches at Drawing #3 at least three guide lines including two horizontal prospective guide lines for each circumscribed quadrangle 6 and one centerline for each circumscribed quadrangle 6. Kobari teaches additional guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5 along with a centerline of the quadrangles, meeting the claimed prospective guide line(s). Kobari teaches at Paragraph 0017 that the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction of the circumscribed quadrangle 5 of a polygon should have

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more than a character string width + threshold, meeting the claim limitation of longer than the longest horizontal segment of the area of the character string. Thus, Kobari teaches performing a horizontal placement of character string at Drawing#3 and Drawing#8 along a prospective centerline that is located at the center of the prospective guide lines of the quadrangles 6 and quadrangles 5 within the polygon that are longer by a threshold value than the longest horizontal segment of the area of the character string.

With respect to the claim 6, Kobari teaches a computer program product for optimizing character string placing, the computer program product stored on a computer readable medium and adapted to perform operations (Drawing#2) comprising:

Performing a first horizontal placement or a first tilting placement (*Kobari teaches at Drawing#5 a horizontal placement. Kobari teaches at Drawing#4 and Drawing#6 a tilting placement or inclination placement*) on all demarcated regions (*Kobari teaches at Drawing#6 a demarcated region and at Drawing#4 and Drawing#6 placing character strings on other demarcated regions, See Paragraph 0008-0028*);

Performing a pull-out placement (*Kobari teaches at Drawing#7 a pull-out placement of the character string in which the character string is placed within/outside of the polygon. At Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, move a character string on vertical 2 bisectrices and rearrange in the position included by the polygon 4. When not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the justification of a locating position, it is possible to also perform the*



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*check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard) on each demarcated region in which the first horizontal placement or the first tilting placement cannot be performed (Kobari teaches at Drawing#6 a pull-out placement in which the first horizontal placement cannot be performed. Kobari teaches at Drawing#7 a pull-out placement of the character string on a demarcated region in which the tilting placement cannot be performed. At Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4), assuming that the character string placed in the first horizontal placement or the first tilting placement has not been placed (Kobari teaches at Drawing#6 that the first horizontal placement has not been placed. Kobari teaches at Drawing#7 a pull-out placement of the character string in which the character string is placed outside of the polygon 4 and the first tilting placement has not been placed. At Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4);*

Performing a second horizontal placement or a second tilting placement to place the character string placed in the first horizontal placement or the first tilting placement, and, when the placement cannot be performed because of the character string placed through the pull-out placement hindering the placement (Kobari teaches at Drawing#6 a pull-out placement of the character string on the demarcated polygon region and at Drawing#7 a pull-out placement of the character string in the demarcated polygon region. At Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4. At

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*Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, move a character string on vertical 2 bisectrices and rearrange in the position included by the polygon 4. When not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the justification of a locating position, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard. Therefore, Kobari teaches re-arranging the character string either in a horizontal direction or in a inclination direction in a position included by the polygon wherein re-arrangement inherently involves a second horizontal placement or a second inclination placement to place the character string so as to include the character string in the polygon without pulling-out placement of the character string. Kobari teaches at Drawing#8 & Drawing#9 the results of the second horizontal placement or a second tilting placement in terms of re-arrangement to place the character string), thereby placing the character string through the second horizontal placement or the second tilting placement (Kobari teaches at Drawing#8 & Drawing#9 the results of the second horizontal placement or a second tilting placement in terms of re-arrangement to place the character string. At Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, move a character string on vertical 2 bisectrices and rearrange in the position included by the polygon 4. When not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the*

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*justification of a locating position, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard).*

Kobari teaches at Drawing#8 & Drawing#9 the second horizontal placement or a second tilting placement in terms of re-arrangement to place the character string. At Paragraph 0026-0029, Kobari teaches that, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, meaning that the pull-output placement in Drawing#8, a character string is moved on vertical 2 bisectrices and rearranged in the position included by the polygon 4. Kobari further teaches that, when the character string is not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the justification of a locating position, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard. Kobari thus teaches that an adjusting/re-arranging placement to move the character string vertically or horizontally within the polygon when the character string cannot be placed through the first horizontal placement or the first tilting placement.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 6-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

**Claims 6-10:**

The claims 6-10, *inter alia*, recite "[a] computer program product...stored on a computer readable medium..." is software *per se*. Computer program per se is non-statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8. *In re Sarkar*, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978). *Abele*, 684 F.2d at 907, 214 USPQ at 687. See also *In re Johnson*, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978).

With respect to the claimed "[a] computer program product...stored on a computer-readable medium", the Ex Parte Frederick D. Busche Appeal No. 2008-004750, Decided May 28, 2009 sheds light. The mere recitation of a computer program product having computer-readable medium does not make the method steps within the non-statutory codes statutory. The claim 29 of Ex Parte Frederick D. Busche recites "a computer program product in a computer readable medium comprising instructions..." The Board stated in Page 20 that, "Computer program product claim 29 and the claims dependent therefrom recite instructions on a computer readable medium for executing the method steps in claim 1 and its dependent claims. The issue presented by these claims is whether recitation of such steps is more than the manipulation of abstract ideas. We find that the steps performed by the instructions do no more than generate arbitrary data sets, compare them, modify them, and then use them in some unspecified predictive algorithm. Thus, since the data is totally arbitrary and is no more than the abstract

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representation of ideas that may be equally abstract, the computer program product contains instructions that do no more than manipulate such abstract ideas. See *In re Warmerdam*, 33 F. 3d 1354, 1360 (Fed. Cir. 1994).”

Importantly, the claim 6 recites software stored on a transitory computer readable medium, as opposed to computer readable medium storing software. Moreover, even if computer readable medium storing software is claimed, the computer readable medium is not disclosed in the Specification and thus under broadest reasonable interpretation that the medium set forth in the claim 6 is not necessary non-transitory. The medium encompasses transitory medium and thus non-statutory.

In conclusion, the claims fail to go beyond a recitation of the manipulation of abstract ideas. *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008). *In re Abele and Marshall*, 214 USPQ 682 (C.C.P.A. 1982). *Ex parte Halligan*, 89 USPQ2d 1355, U.S. Patent and Trademark Office Appeal No. 2008-1588. *Ex parte Jakobsson*, 84 USPQ2d 1511, U.S. Patent and Trademark Office Appeal No. 2006-2107, Decided April 16, 2007. *Ex parte Cornea-Hasegan*, 89 USPQ2d 1557 (Bd. Pat. App. & Int. 2009). *Ex parte Langemyr*, 89 USPQ2d 1988, U.S. Patent and Trademark Office Appeal No. 2008-1495. *Ex Parte David Myr*, Appeal No. 2009-005949, Decided Sept. 18, 2009. *Ex Parte George Henry Forman*, Appeal No. 2008-005348, Decided August 17, 2009. *Ex parte Srinivas Gutta and Kaushal Kurapati*, Appeal No. 2008-004366, Decided August 10, 2009. Ex Parte Rodney Daughtrey, Appeal No. 2008-000202, Decided April 8, 2009.

Limiting the claim to computer readable medium does not add any practical limitation to the scope of the claim. Such a field-of-use limitation is insufficient to render an otherwise

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ineligible claim patent eligible. In essence applicant is preempting all substantial uses of the claimed abstract idea. The claims 7-10 are subject to the same rationale of rejection set forth in the claim 6.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobari et al. (Japanese Publication No. 8-167039) in further view of Fushiki et al. (US Pat. No. 6,868,524) and Ozawa US Patent Application Publication 2004/0001628 (hereinafter Ozawa).

In re claim 1, Kobarai teaches an apparatus for optimizing character string placing (Drawing #2) comprising:

Means for drawing prospective guide lines as virtual horizontal lines arranged in parallel at regular intervals in the demarcated region (*e.g., At Drawing #3, guide lines including at least two horizontal prospective guide lines within each circumscribed quadrangle 6 and at least one center line are drawn.*

*Guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5 and at least one centerline of the quadrangles are drawn.*

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*At Drawing# 5 and Paragraph 0017, the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold wherein the lines are drawn as virtual horizontal lines in the Drawing #6 as regular scan lines on a display at regular time intervals in the demarcated region 4);*

Means for selecting, from among the prospective guide lines, specific prospective guide lines that are arranged in parallel and are longer than a longest horizontal segment of an area of a character string (Kobari discloses at Drawing #3 selecting at least two horizontal prospective guide lines by selecting each circumscribed quadrangle 6 containing the prospective guide lines along with the centerline of the quadrangle 6. Kobari teaches drawing at least two horizontal prospective guide lines along with one centerline by drawing at least two horizontal lines for each circumscribed quadrangle 5 along with a centerline of each quadrangle or at least three horizontal lines are drawn in the figure, meeting the claimed prospective guide line(s). Kobari discloses at Drawing# 5 and Paragraph 0017, the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction---the centerline direction---- of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold, thus meeting the claimed “longer than the longest horizontal segment of the area of the character string. The centerline of the circumscribed quadrangle 6 has been also explicitly drawn and visualized in Drawing #3 and multiple circumscribed quadrangles including the rectangle 6 are disclosed in Drawing #5 wherein each quadrangle includes at least two circumscribed horizontal lines and the centerline of each quadrangle is illustrated in Fig. 3. At least one of the circumscribed quadrangles is selected to encompass a character string

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*wherein the selected circumscribed quadrangle has at least two prospective guide lines drawn in parallel);*

Means for specifying one of the specific prospective guide lines that is located at the center of an arrangement of the specific guide lines arranged in parallel in a vertical direction (*Korari discloses in Written Description placing a character string along the centerline in the horizontal lengthwise direction of a circumscribed quadrangle within a polygon having a plurality of circumscribed quadrangles and thus discloses selecting from among the prospective guide lines of the circumscribed quadrangles within a polygon, specific prospective guide lines of a particular circumscribed quadrangle by selecting the particular circumscribed quadrangle to place the character string along the horizontal lengthwise direction of the particular circumscribed quadrangle. Thus, Kobari discloses specifying a centerline as clearly indicated in the Drawing#5 and Drawing #8 that a centerline is specified within a selected circumscribed quadrangle to place or align the character string in the horizontal lengthwise direction as clearly shown in Drawing #5 and Drawing #8); and*

Means for placing the character string along said one of the specific prospective guide lines (*Kobari discloses at Drawing #3 at least three horizontal prospective guide lines including two guide lines for each circumscribed quadrangle 6 and one centerline for each circumscribed quadrangle 6. Kobari teaches specifying at least three guide lines including two horizontal prospective guide lines for each circumscribed quadrangle 5 and one centerline of each quadrangle as drawn in the figure, meeting the claimed prospective guide line(s). Kobari teaches selecting the circumscribed quadrangle 6 and selecting the prospective guide lines by selecting the circumscribed quadrangle 6 and placing the character string along the centerline of the*



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*prospective guide lines. Kobari teaches specifying a centerline so as to place a character string within the circumscribed quadrangle 6. Placing the character string within the circumscribed quadrangle 6 includes the steps of specifying the respective rectangle to place a character string within the circumscribed quadrangle 6 and placing the character string along the centerline of the quadrangle 6. Kobari teaches specifying a centerline for the particular character string being placed along the centerline.*

*Korari discloses in Written Description placing a character string along the centerline in the horizontal lengthwise direction of a circumscribed quadrangle within a polygon having a plurality of circumscribed quadrangles and thus discloses selecting from among the prospective guide lines of the circumscribed quadrangles within a polygon, specific prospective guide lines of a particular circumscribed quadrangle by selecting the particular circumscribed quadrangle to place the character string along the horizontal lengthwise direction of the particular circumscribed quadrangle. Thus, Kobari discloses specifying a centerline as clearly indicated in the Drawing#5 and Drawing #8 that a centerline is specified within a selected circumscribed quadrangle to place or align the character string in the horizontal lengthwise direction as clearly shown in Drawing #5 and Drawing #8.*

*Kobari teaches at Drawing #3 at least three parallel guide lines including two horizontal prospective guide lines for each circumscribed quadrangle 6 and one centerline for each circumscribed quadrangle 6.*

*Kobari further teaches at least three parallel guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5 and one centerline of the quadrangles, meeting the claimed prospective guide line(s). Kobari teaches at Paragraph 0017*

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*that the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold, meeting the claim limitation of longer than the longest horizontal segment of the area of the character string. Thus, Kobari teaches performing a horizontal placement of character string at Drawing#3 and Drawing#8 along a prospective centerline that is located at the center of the prospective guide lines of the quadrangles 6 and quadrangles 5 within the polygon that are longer by a threshold value than the longest horizontal segment of the area of the character string).*

In Page 9 of Remarks, Applicant argues with respect to the Kobari reference that the guide lines of Kobari are arranged in parallel, but not at regular intervals. The Examiner respectfully disagrees. Applicant's claim 1 requires plural regular intervals which is a broad term. What is reasonable interpretation of the claimed regular intervals? In a non-limiting example, when all guide lines are not arranged at a singular regular interval in which guide lines arranged at a first regular interval and guide lines arranged at a second regular interval meets the claimed guide lines arranged at regular intervals, all guide lines are still arranged at regular intervals including the first regular interval and the second regular interval. Moreover, for argument's sake, even if Applicant may import limitations from the Specification, Kobari's Fig. 3 includes at least three guide lines including two guide lines for the circumscribed quadrangle 6 and one center line arranged at a regular interval. Kobari's three guide lines arranged in parallel in the first regular interval constitute two guide lines arranged in the first regular interval and two other guide lines arranged in the first regular interval. The three guide lines together are the claimed guide lines arranged in parallel at regular intervals.

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Kobari teaches at Drawing #5 plural prospective guide lines embedded with the plural rectangles. The prospective guide lines for one rectangle are arranged in parallel at a first regular interval and the prospective guide lines for the other rectangle may be arranged in parallel at a second regular interval, meeting the claimed guide lines arranged at regular intervals.

In Page 9 of Remarks, Applicant further argues that Fig. 3 of Kobari only show two guide lines for the circumscribed quadrangle 6. The Examiner cannot concur. Fig. 3 of Kobari also shows a centerline. The centerline is clearly drawn in Fig. 3 of Kobari. Applicant ignores the centerline in Fig. 3 of Kobari for arguments' sake. The centerline in Fig. 3 of Kobari cannot be ignored. Kobari's Fig. 3 includes at least three guide lines including two guide lines for the circumscribed quadrangle 6 and one center line arranged at a regular interval.

Kobari further teaches selecting a rectangle to place a character string which is the same as specifying the respective parallel horizontal guide lines including a centerline for the rectangle. Moreover, Kobari teaches at Drawing #3 specifying a centerline for the circumscribed rectangle 6. The centerline is specified so as a character string is placed along the centerline.

In Page 10 of Remarks, Applicant argues in essence with respect to the claimed placing the character string along one of the specific prospective guide lines.

In response, Kobari discloses at Drawing #3 at least three horizontal prospective guide lines including two guide lines for each circumscribed quadrangle 6 and one centerline for each circumscribed quadrangle 6. Kobari teaches specifying at least three guide lines including two horizontal prospective guide lines for each circumscribed quadrangle 5 and one centerline of each quadrangle as drawn in the figure, meeting the claimed prospective guide line(s). Kobari teaches selecting the circumscribed quadrangle 6 and selecting the prospective guide lines by

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selecting the circumscribed quadrangle 6 and placing the character string along the centerline of the prospective guide lines. Kobari teaches specifying a centerline so as to place a character string within the circumscribed quadrangle 6. Placing the character string within the circumscribed quadrangle 6 includes the steps of specifying the respective rectangle to place a character string within the circumscribed quadrangle 6 and placing the character string along the centerline of the quadrangle 6. Kobari teaches specifying a centerline for the particular character string being placed along the centerline.

Kobari discloses at Drawing #3 selecting at least two horizontal prospective guide lines by selecting each circumscribed quadrangle 6 containing the prospective guide lines. Kobari teaches drawing at least two horizontal prospective guide lines by drawing each circumscribed quadrangle 5 along with a centerline of each quadrangle or the horizontal lines are drawn in the figure, meeting the claimed prospective guide line(s). Kobari discloses at Drawing# 5 and Paragraph 0017, the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction---the centerline direction---- of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold, thus meeting the claimed “longer than the longest horizontal segment of the area of the character string. The centerline of the circumscribed quadrangle 6 has been also explicitly drawn and visualized in Drawing #3 and multiple circumscribed quadrangles including the rectangle 6 are disclosed in Drawing #5 wherein each quadrangle includes at least two circumscribed horizontal lines and the centerline of each quadrangle is illustrated in Fig. 3. At least one of the circumscribed quadrangles is selected to encompass a character string wherein the selected circumscribed quadrangle has at least two prospective guide lines drawn in parallel.

Korari discloses in Written Description placing a character string along the centerline in the horizontal lengthwise direction of a circumscribed quadrangle within a polygon having a plurality of circumscribed quadrangles and thus discloses selecting from among the prospective guide lines of the circumscribed quadrangles within a polygon, specific prospective guide lines of a particular circumscribed quadrangle by selecting the particular circumscribed quadrangle to place the character string along the horizontal lengthwise direction of the particular circumscribed quadrangle. Thus, Kobari discloses a centerline is specified within a selected circumscribed quadrangle to place or align the character string in the horizontal lengthwise direction as clearly shown in Drawing #5 and Drawing #8.

Kobari teaches at Drawing #3 at least two horizontal prospective guide lines for each circumscribed quadrangle 6 and at least two horizontal prospective guide lines for each circumscribed quadrangle 5 along with a centerline of the quadrangles or the horizontal line, meeting the claimed prospective guide line(s). Kobari teaches at Paragraph 0017 that the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold, meeting the claim limitation of longer than the longest horizontal segment of the area of the character string. Thus, Kobari teaches performing a horizontal placement of character string at Drawing#3 and Drawing#8 along a prospective centerline that is located at the center of the prospective guide lines of the quadrangles 6 and quadrangles 5 within the polygon that are longer by a threshold value than the longest horizontal segment of the area of the character string.

Kobari et al. discloses selecting the longest of the lines ([0015]-[0018]). Although Kobari implicitly teaches prospective guide lines by disclosing *at least two horizontal prospective guide lines for each circumscribed quadrangle 6 and at least two horizontal prospective guide lines for each circumscribed quadrangle 5*, Kobari does not expressly disclose the prospective guide lines. However, Fushiki et al. discloses producing scan lines to determine string placement (Fig. 4a). Fushiki teaches at Fig. 6 and column 6 that the region's perimeter will not intersect text written within the region in which the text is placed within the rectangle box 530 and/or Rectangle 532 wherein the text includes at least one character string placed along the centerline of the rectangle box 530 and/or Rectangle 532 that is located at the center of the prospective guide lines that are longer than the longest horizontal segment of the area of the character string because the character string is placed within the text box. At least the five guide lines in Fig. 6 are arranged in parallel and at least one character string (of the text) is placed along the center line of the text box 530 or the text box 532.

It would have been obvious to one of ordinary skill to use the scan lines of Fushiki et al. of which the length determiner of Kobari et al. with the motivation of finding the best place to a label.

In re claim 4, Kobari at least implicitly teaches or suggests the claim limitation of adjusting placement to move the placed character string vertically or horizontally within the demarcated region [Paragraph 0026].

Kobari teaches at Drawing #3 at least two horizontal prospective guide lines for each circumscribed quadrangle 6 and at least two horizontal prospective guide lines for each circumscribed quadrangle 5 along with a centerline of the quadrangles or the horizontal line

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which meets the claimed a prospective guide line. Kobari teaches at Paragraph 0017 that the actual breadth of the character string circumscribed quadrangle 6 in the middle point of the lengthwise direction of the circumscribed quadrangle 5 of a polygon should have more than a character string width + threshold. Thus, Kobari teaches performing a horizontal placement of character string at Drawing#3 and Drawing#8 along a prospective centerline that is located at the center of the prospective guide lines of the quadrangles 6 and quadrangles 5 within the polygon that are longer by a threshold value than the longest horizontal segment of the area of the character string.

Kobari teaches at Drawing#8 & Drawing#9 the second horizontal placement or a second tilting placement in terms of re-arrangement to place the character string. At Paragraph 0026-0029, Kobari teaches that, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, meaning that the pull-output placement in Drawing#8, a character string is moved on vertical 2 bisectrices and rearranged in the position included by the polygon 4. Kobari further teaches that, when the character string is not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the justification of a locating position, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard. Therefore, Kobari teaches adjusting or re-arranging the character string to move the placed character string vertically or horizontally within the polygon---the demarcated region.

Kobari et al. discloses selecting the longest of the lines ([0015]-[0018]). Although Kobari implicitly teaches prospective guide lines by disclosing *at least three guide lines including two horizontal prospective guide lines for each circumscribed quadrangle 6 and one centerline. Additionally, Kobari teaches at least more guide lines including at least two horizontal prospective guide lines for each circumscribed quadrangle 5*, Kobari shows in the Figures prospective guide lines, but does not expressly use the wording of the prospective guide lines in the Specification. However, Fushiki et al. discloses producing scan lines to determine string placement (Fig. 4a). It would have been obvious to one of ordinary skill to use the scan lines of Fushiki et al. of which the length determiner of Kobari et al. with the motivation of finding the best place to a label. Moreover, it also needs to be shown whether Kobari and Fushiki disclose specifying the one of the specific prospective guide lines that is located at the center of an arrangement of the specific guide lines in a vertical direction. However, Ozawa discloses a computer program of placing character string aligned with horizontal lines including the centerline and specifying a centerline so as to place the character string along the centerline (Ozawa Figs. 22A-22B as disclosing specifying the centerlines of the bounding boxes and Fig. 26A-26B as disclosing placing a character string in a bounding box). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to have incorporated Ozawa's specifying a centerline of a bounding box and placing a character string along the centerline within the bounding box wherein each bounding box further comprises at least two horizontal guide lines. One of the ordinary skill in the art would have been motivated to place the character string in the center of the bounding box (Ozawa Figs. 26A-26B and Kobari Drawing #3 and Drawing #8).



Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kobari et al. (Japanese Publication No. 8-167039) in further view of Fushiki et al. (US Pat. No. 6,868,524) Ozawa US Patent Application Publication 2004/0001628 (hereinafter Ozawa), and Freeman et al. (US Pat. No. 5,724,072).

In re claim 5, Kobari at least implicitly teaches at Draings#6, Draing#8 and Drawing#9 the claim limitation of centering placement to arrange the placed character string in such a manner that the distances between the demarcated region segments that demarcate the demarcated region and dots on character string region segments that demarcate the character string region are made uniform.

Kobari teaches at Drawing#8 & Drawing#9 the second horizontal placement or a second tilting placement in terms of re-arrangement to place the character string such that the character string is placed in the center of the polygon. At Paragraph 0026-0029, Kobari teaches that, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, meaning that the pull-output placement in Drawing#8, a character string is moved on vertical 2 bisectrices and rearranged in the position included by the polygon 4. Kobari further teaches that, when the character string is not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the justification of a locating position, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard. Therefore, Kobari teaches

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adjusting or re-arranging the character string to move the placed character string vertically or horizontally within the polygon----the demarcated region.

Kobari et al. and Fushiki et al. do not expressly disclose placing the label in the center. However Freeman et al. discloses placing the label into the geographic center (Column 8 lines 21-40). It would have been obvious to one of ordinary skill to not only choose the middle of the scan lines from Kobari et al. and Fushiki et al but also to center it on the lines from Freeman with the motivation of having better placement for label for maps such a soil survey maps.

Claims 6-7, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobari et al. (Japanese Publication No. 8-167039) in further view of Fushiki et al. (US Pat. No. 6,868,524) and Freeman et al. (US Pat. No. 5,724,072).

In re claims 6, 7,

Kobari teaches a computer program product for optimizing character string placing, the computer program product stored on a computer readable medium and adapted to perform operations (Drawing#2) comprising:

Performing a first horizontal placement or a first tilting placement (*Kobari teaches at Drawing#5 a horizontal placement. Kobari teaches at Drawing#4 and Drawing#6 a tilting placement or inclination placement*) on all demarcated regions (*Kobari teaches at Drawing#6 a demarcated region and at Drawing#4 and Drawing#6 placing character strings on other demarcated regions, See Paragraph 0008-0028*);

Performing a pull-out placement (*Kobari teaches at Drawing#7 a pull-out placement of the character string in which the character string is placed within/outside of the polygon. At*

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*Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, move a character string on vertical 2 bisectrices and rearrange in the position included by the polygon 4. When not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the justification of a locating position, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard) on each demarcated region in which the first horizontal placement or the first tilting placement cannot be performed (Kobari teaches at Drawing#6 a pull-out placement in which the first horizontal placement cannot be performed. Kobari teaches at Drawing#7 a pull-out placement of the character string on a demarcated region in which the tilting placement cannot be performed. At Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4), assuming that the character string placed in the first horizontal placement or the first tilting placement has not been placed (Kobari teaches at Drawing#6 that the first horizontal placement has not been placed. Kobari teaches at Drawing#7 a pull-out placement of the character string in which the character string is placed outside of the polygon 4 and the first tilting placement has not been placed. At Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4);*

Performing a second horizontal placement or a second tilting placement to place the character string placed in the first horizontal placement or the first tilting placement, and, when

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the placement cannot be performed because of the character string placed through the pull-out placement hindering the placement (*Kobari teaches at Drawing#6 a pull-out placement of the character string on the demarcated polygon region and at Drawing#7 a pull-out placement of the character string in the demarcated polygon region. At Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4. At Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, move a character string on vertical 2 bisectrices and rearrange in the position included by the polygon 4. When not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the justification of a locating position, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard. Therefore, Kobari teaches re-arranging the character string either in a horizontal direction or in a inclination direction in a position included by the polygon wherein re-arrangement inherently involves a second horizontal placement or a second inclination placement to place the character string so as to include the character string in the polygon without pulling-out placement of the character string. Kobari teaches at Drawing#8 & Drawing#9 the results of the second horizontal placement or a second tilting placement in terms of re-arrangement to place the character string), thereby placing the character string through the second horizontal placement or the second tilting placement (Kobari teaches at Drawing#8 & Drawing#9 the results of the second horizontal placement or a second tilting placement in terms*

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*of re-arrangement to place the character string. At Paragraph 0026-0029, it is stated, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, move a character string on vertical 2 bisectrices and rearrange in the position included by the polygon 4. When not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the justification of a locating position, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard).*

Kobari teaches at Drawing#8 & Drawing#9 the second horizontal placement or a second tilting placement in terms of re-arrangement to place the character string. At Paragraph 0026-0029, Kobari teaches that, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, meaning that the pull-output placement in Drawing#8, a character string is moved on vertical 2 bisectrices and rearranged in the position included by the polygon 4. Kobari further teaches that, when the character string is not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the justification of a locating position, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard. Kobari thus teaches that an adjusting/re-arranging placement to move the character

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string vertically or horizontally within the polygon when the character string cannot be placed through the first horizontal placement or the first tilting placement.

Kobari et al. and Fushiki et al. disclose the inclination of the line if it does not fit ([0015] - [0026]). Although Kobari implicitly teach the pull-out placement in the Drawing#7 as an intermediate step subject to re-arrangement of the character strings, Kobari et al. and Fushiki et al. do not expressly disclose pull out placement in a clear manner. However, Freeman et al. discloses the pull out placement (Column 5, lines 53- 65). It would have been obvious to combine the inclining and placement of the line and case method of inclining if the line doesn't fit of Kobari et al. and Fushiki et al. and add the case where the string can't fit inside and use the pop out method of Freeman et al. with the motivation of getting the better way to place the string.

In re claim 10,

Kobari at least implicitly teaches at Draings#6, Draing#8 and Drawing#9 the claim limitation of centering placement to arrange the placed character string in such a manner that the distances between the demarcated region segments that demarcate the demarcated region and dots on character string region segments that demarcate the character string region are made uniform.

Kobari teaches at Drawing#8 & Drawing#9 the second horizontal placement or a second tilting placement in terms of re-arrangement to place the character string such that the character string is placed in the center of the polygon. At Paragraph 0026-0029, Kobari teaches that, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, meaning that the pull-output placement in Drawing#8, a character string is moved on vertical 2 bisectrices

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and rearranged in the position included by the polygon 4. Kobari further teaches that, when the character string is not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the justification of a locating position, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard.

Kobari et al. and Fushiki et al. disclose the inclination of the line if it does not fit ([0015] - [0026]). It is noted that Kobari et al. and Fushiki et al. do not expressly disclose pull out placement placing the label into the geographic center (Column 8 lines 21-40). However, Freeman et al. discloses the pop out placement (Column 5, lines 53-65) placing the label into the geographic center (Column 8 lines 21-40). It would have been obvious to combine the inclining and placement of the line and case method of inclining if the line doesn't fit of Kobari et al. and Fushiki et al. and add the case where the string can't fit inside and use the pop out method of Freeman et al. with the motivation of getting the better way to place the string.

Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobari et al. (Japanese Publication No. 8-167039) in further view of Fushiki et al. (US Pat. No. 6,868,524), Freeman et al. (US Pat. No. 5,724,072), and Yoshimura et al. (Japanese Publication No. 9-185696).

In re claims 8-9,

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Kobari at least implicitly teaches at Drawings#6, Drawing 7, Drawing#8 and Drawing#9 the claim limitation of a replacing placement, after the second horizontal placement or the second tilting placement in a re-arrangement of the character string, to place alternative display objects such as characters, other character strings, symbols, or graphics, instead of the character string that cannot be placed in the first horizontal placement or the first tilting placement, the pull-output placement, or second horizontal placement or the second tilting placement.

Kobari further teaches at Drawing#7 the pull-out placement again prior to the replacing placement in Drawing#9.

Kobari teaches at Drawing#8 & Drawing#9 the second horizontal placement or a second tilting placement in terms of re-arrangement to place the character string such that the character string is placed in the center of the polygon. At Paragraph 0026-0029, Kobari teaches that, when the circumscribed quadrangle 6 of a character string is not included by the polygon 4, meaning that the pull-output placement in Drawing#8, a character string is moved on vertical 2 bisectrices and rearranged in the position included by the polygon 4. Kobari further teaches that, when the character string is not re-arrangeable, it looks for directions of an operator and it rearranges in a direction position (7d). Although only inclusion relation was used for the inspection of the justification of a locating position, it is possible to also perform the check of whether other elements overlap with the existence region of a character string. It becomes possible by dividing a polygon into plurality and considering it to also perform arrangement of two or more character strings to one polygon based on inclination used as a standard. Thus, Kobari teaches placing other character strings.



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It is noted that Fushiki et al and Fushiki et al. and Freeman et al. do not expressly disclose replacement placement. However, Yoshimura et al. discloses replacement placement [0118]. It would have been obvious to combine the if statement and string placement of Fushiki et al. and Freeman et al. with the added if statement for replacement placement of Yoshimura et al. with the motivation of automatically shortening the string.

### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JIN-CHENG WANG whose telephone number is (571)272-7665. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jin-Cheng Wang/  
Primary Examiner, Art Unit 2628